

# Routine Influenza Algorithm

## Michigan Department of Community Health

### Instructions for Clinical Labs

**NOTE: MDCH performs routine year round surveillance for influenza. Please visit the MDCH website at [www.michigan.gov/flu](http://www.michigan.gov/flu) and MIHAN for updates.**

‡ **Criteria for novel/avian influenza** testing include signs and symptoms suggestive of influenza (fever, headache, tiredness, cough, sore throat, muscle aches, and radiograph evidence of pneumonia) and travel to an area with confirmed human cases of avian influenza and direct or unprotected exposure to infected birds (including feathers, feces and under-cooked meat and egg products). For a current listing of affected areas, go to [www.pandemicflu.gov](http://www.pandemicflu.gov)

#### Routine Influenza Testing:

Routine surveillance through laboratories and physicians enrolled in Sentinel Surveillance Program. See page 2 of this algorithm if patient meets criteria for testing‡ for novel influenza.<sup>8</sup>

Collect acceptable specimen \* or isolate and ship to MDCH immediately with frozen cold packs.

Viral respiratory culture performed at MDCH

Negative

Positive

Result reported via MDCH Laboratory Information Management System (LIMS).

Further viral characterization, i.e., Influenza A subtyping, performed at MDCH. If results indicate novel/avian strain isolate will be sent to CDC.

Result reported via MDCH LIMS.

\* **Acceptable specimens** for routine seasonal flu: NP wash, bronchial lavage, NP swab, throat swab.

Postmortem specimens: parafin-embedded or formalin-fixed respiratory tissue. Consult MDCH Bureau of Epidemiology at (517) 335-8165 prior to submitting samples.

<sup>8</sup> A **novel Influenza subtype** is one that has not previously been circulating in the human population, resulting in a population that is immunologically naïve to the virus.

# Novel/Avian Influenza Algorithm

## Michigan Department of Community Health

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**NOTE:** This algorithm will be updated as necessary. Please visit the MDCH website at [www.michigan.gov/flu](http://www.michigan.gov/flu) and MIHAN for updates and for BioSafety Guidelines in collecting and handling of specimens.

### *Novel/Avian Influenza Suspect Case:*

Patient risk assessment (see †) and pre-approval for Novel/Avian Influenza testing required from Bureau of Epidemiology (BOE), 517-335-8165 or 517-335-9030 after hours.

Collect specimens (see @) and ship to MDCH immediately with frozen cold packs. The submitting lab should **not** set-up or order viral cultures but may continue with routine culture testing for alternative non-viral agents. Samples should be submitted to MDCH for novel influenza testing **regardless** of results of other influenza tests (i.e., even if rapid flu tests are negative).

PCR at MDCH for  
Flu A (H1, H3 and H5 subtypes),  
And Flu B

Flu A +, H1 or H3+, OR B +, **and H5 -**

BOL to telephone BOE.  
Result reported via MDCH LIMS.  
Viral culture or further viral characterization may proceed at MDCH or submitter laboratory depending on resources. (Sputum specimens are unacceptable for viral culture.)

Viral culture result reported via MDCH LIMS.

BOL will report CDC result upon receipt.

08/05/2006

Flu A+ **but** H1-, H3-, H5-

BOL to telephone BOE.  
**DO NOT PERFORM VIRAL CULTURE.**  
Result reported via MDCH LIMS.  
Specimens sent to CDC for confirmation.

Flu A+ and **H5 +**

BOL to telephone BOE/OPHP.  
Local health department (LHD) and submitter notification by BOE.  
**DO NOT PERFORM VIRAL CULTURE.**  
Result reported via MDCH LIMS.

Specimens sent to CDC for confirmation.

BOL will report CDC result upon receipt.

@ Multiple sample types collected over multiple days are recommended including OP swabs, sputum, bronchial lavage. NP and nasal swabs are acceptable but less productive than other sample types. **DO NOT SUBMIT ONLY SPUTUM.**

Postmortem Specimens: Paraffin-embedded or formalin-fixed respiratory tissue. Consult MDCH Bureau of Epidemiology at (517) 335-8165 prior to submitting samples.

**Pandemic Influenza Algorithm**  
**Michigan Department of Community Health**  
**Instructions for Clinical Labs**

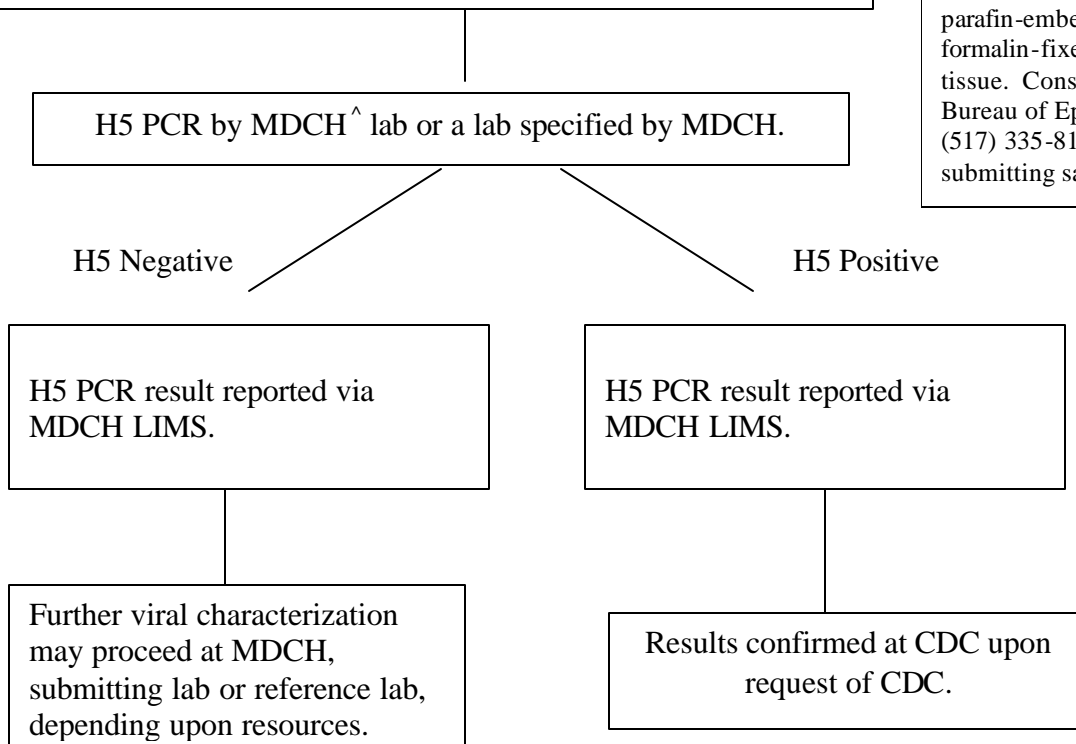
**NOTE: This algorithm is to be used once sustained human-to-human transmission has occurred.** It will be updated as necessary. Testing beyond H5 will depend on resources and surveillance needs. Please visit the MDCH website at [www.michigan.gov/flu](http://www.michigan.gov/flu) and MIHAN for updates.

**Pandemic Influenza Suspect Case – H5 Screen:**

Ship acceptable specimens (see #) to MDCH immediately with frozen cold packs. Submitter should retain an aliquot and proceed with additional viral testing only after notification of negative H5 results. Consider H5 testing regardless of results of other influenza tests (i.e., even if rapid flu tests are negative).

# Multiple sample types collected over multiple days are recommended including OP swabs, sputum, bronchial lavage. NP and nasal swabs are acceptable but less productive than other sample types. **DO NOT SUBMIT ONLY SPUTUM.**

Postmortem specimens: paraffin-embedded or formalin-fixed respiratory tissue. Consult MDCH Bureau of Epidemiology at (517) 335-8165 prior to submitting samples.



**^ Bureaus of Laboratories and of Epidemiology will jointly determine when routine H5 testing is no longer indicated. Testing for surveillance purposes will continue as needed. Further guidance on testing will be provided at that time.**